Inventor: Glen A. Evans Atty Docket No.: P-EA 4854

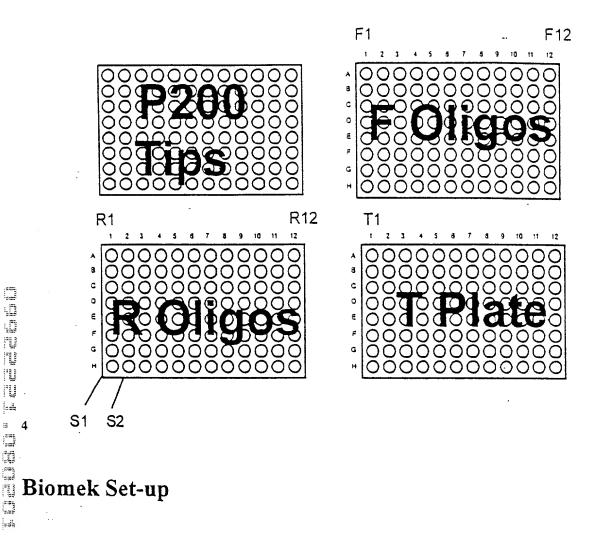


Figure 1

Genewriter - Oligonucleotide Pooling Plan

F-A1	F-A2			F-A3			F-A4			F-A			
•	R-A1		R-A2			R-A3	 .		R-A4		R	-A5	_
	1 2	2 3	4	5	6	7	8	9	10	11	12		
A B C D E F	0000000		0000000	0000000	0000000	0000000	0000000	0000000	0000000	0000000	0000000		
Н	00			0	<u>O</u>	<u> </u>	<u> </u>	0	0	0	0		
	1 2	2 3	4	5	6	7	8	9	10	11	12	ľ	
A B C D E F G H	00000000)		\bigcirc	\bigcirc	\bigcirc		\bigcirc			\bigcirc		

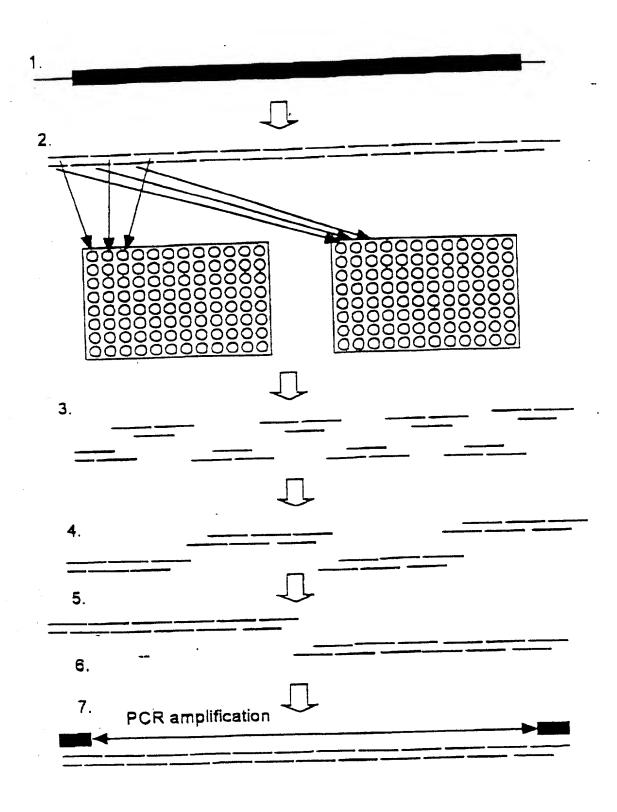
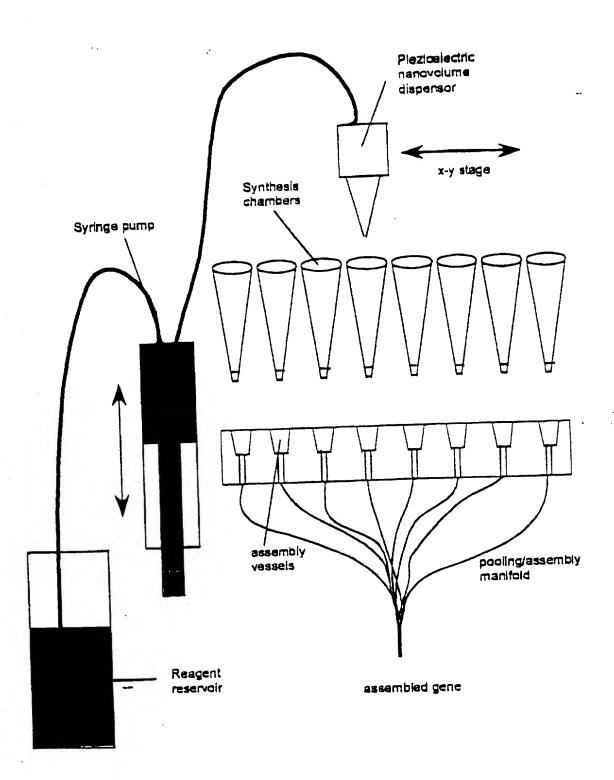


Figure 3



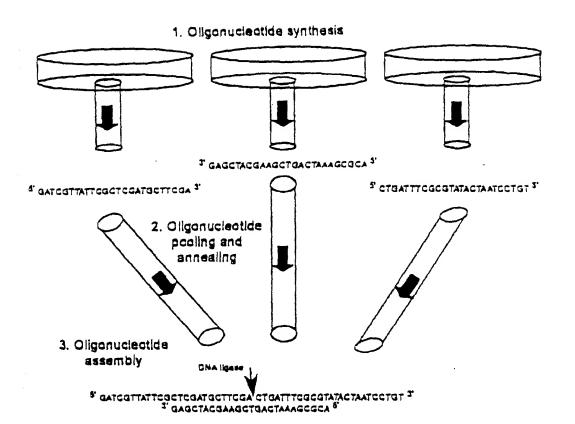
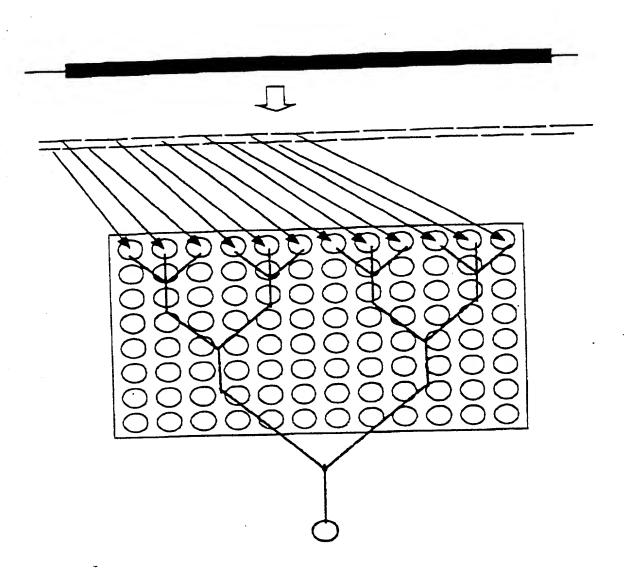


Figure 5



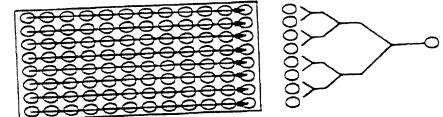


Figure 7

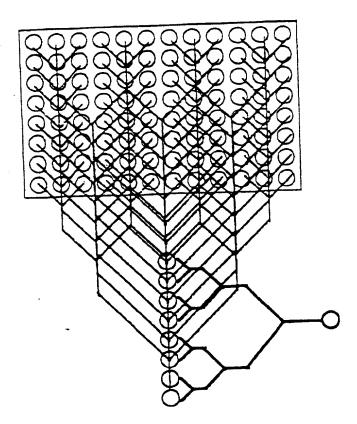


Figure 8

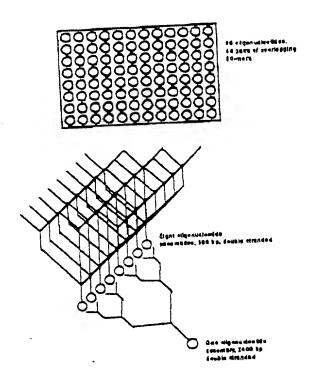


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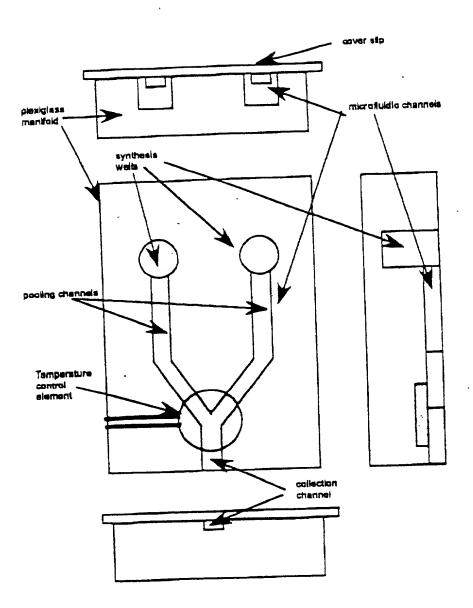


Figure 10

Genewriter Platform Design 8 x 96 well plates addressed with 16 piezicelectric nanovolume dispense heads; One wash/dry station and one additional plate station. 8 plate evacuated by a single vacuum station.

Capacity of 8 x 95 = 758 oligos/run

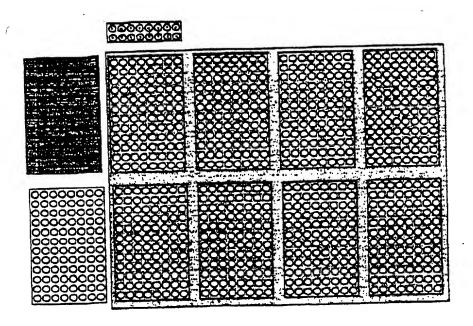


Figure 11

Genewriter Platform Design - High Capacity Mode 8 x 1536 well microseasy plates addressed with 16 plazicelectric nanovolume dispense heads; One wash/dry station and one additional plate station, 18 plates evacuated by a single vacuum station.

Capacity of 8 x 1536 = 12,256 dilgos/run

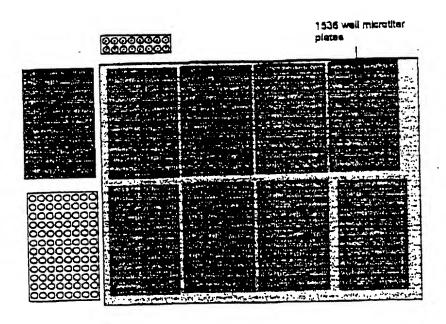


Figure 12

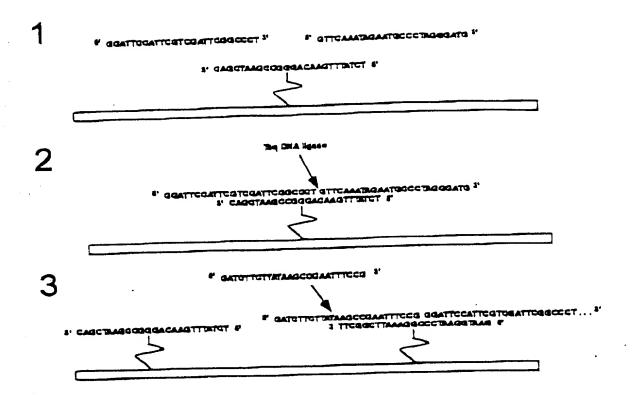


Figure 13

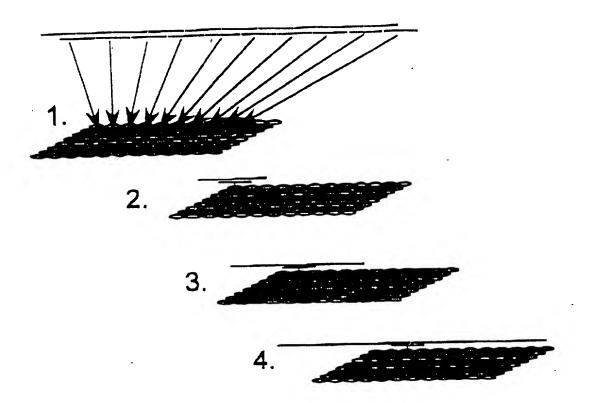
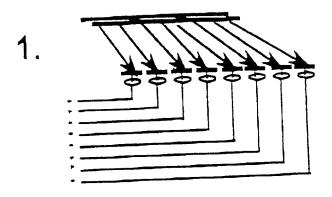
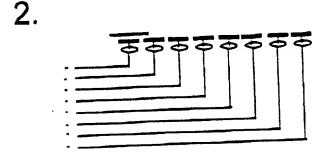


Figure 14





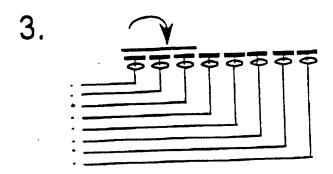


Figure 15

Bidirectional primer extension strategy for gene assembly

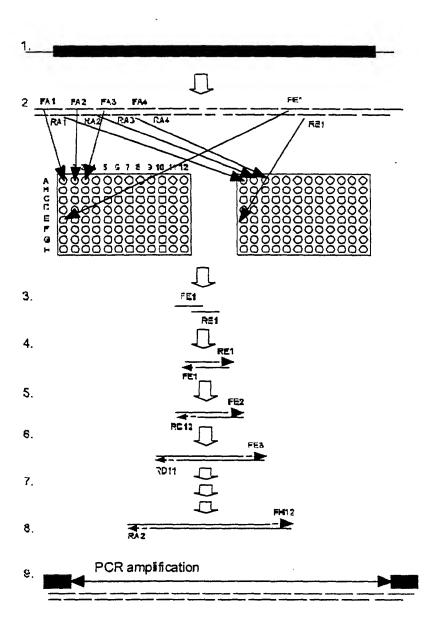


Figure 16

System Diagram for Genewriter

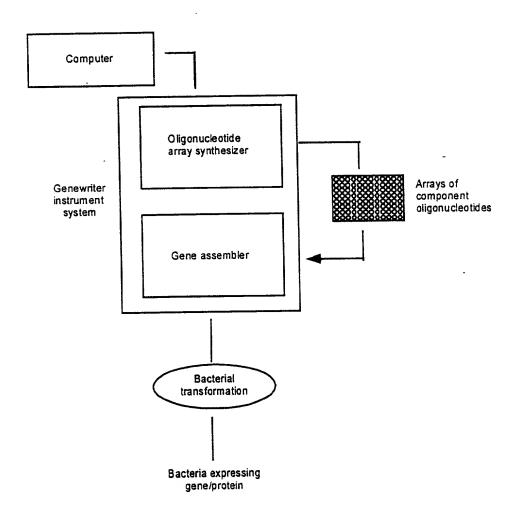


Figure 17

Perspective view of Genewriter Instrument

Genewriter diagram

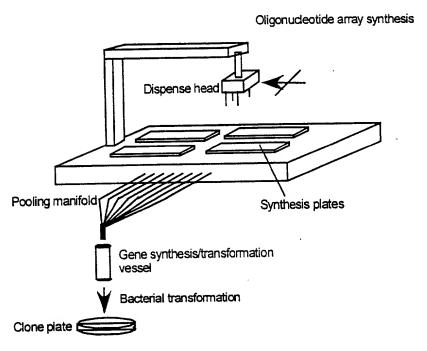
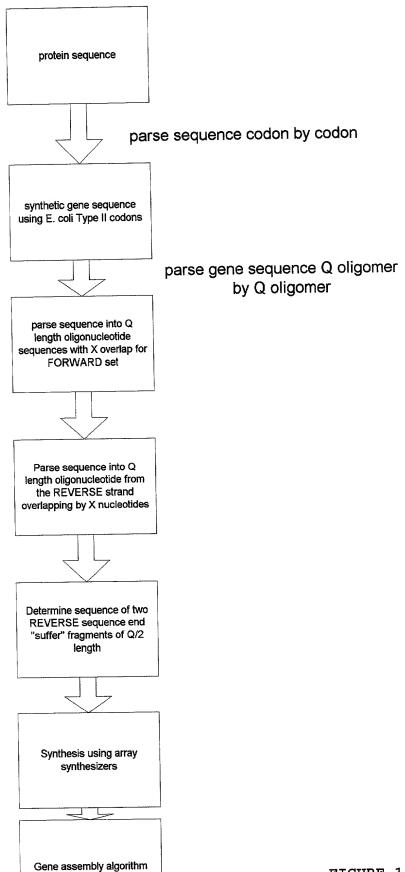


Figure 18

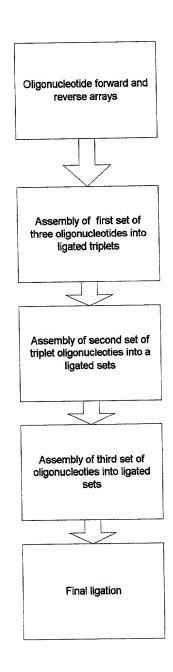
Generation of self-assembling oligonucleotide arrays

Option 1

Inventor: Glen A. Evans Atty Docket No.: P-EA 4854



Assembly of Self assembling oligonucleotide arrays Option 1



Generation of self-assembling oligonucleotide arrays

Inventor: Glen A. Evans Atty Docket No.: P-EA 4854

